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ABSTRACT

The frequency with which students borrow works of literature that can be called eminent or great works from a university library was examined in two studies that are interesting for their methodology and their findings. An operational definition of great or eminent works was developed, and a list of such works was derived from three sources on Western culture. In the first study, circulation records for 45 eminent novels from the list were studied for the last 10 years, and a rate was developed from dividing the number of checkouts by the elapsed time in years since the first circulation stamp during the 10 years. Obtained ratios for each volume of the same work were simply together. In the second study, the same sample of works was studied through the library's online circulation system for the recent past. The only difference between the two studies was in the method of obtaining the basic data (i.e., an automated or online system in the second study rather than the older manual system in the first study). Library material borrowing results were quite comparable for the two methods, suggesting methodologies that enable the comparison of rates of checkout by students. Tables present the borrowing rates by both methods, and a list of the 16 most selective works. (SLD)

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University Library Borrowing:
Two Studies Illustrating a Methodology

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INTRODUCTION

With what frequency do students borrow works of literature from a university library that could, by some reasonable definition, be called eminent or great works? This question was raised as part of an assessment program in which one of the goals of the general education program was being evaluated. That objective dealt with appreciation for literature, and the question raised was deemed relevant to the evaluation. In retrospect, the two studies of this question were more significant for the practical methodology that was developed for approaching questions of this nature than for their bearing on the original question. However, in order to illustrate this methodology thoroughly, this paper will present the steps involved in attempting to answer the initial research question. The two studies conducted will demonstrate the validity of the approach taken in two extremely different situations: one before and one after the implementation of an automated catalog search system.

STUDY 1

The general subject of this study was the borrowing behavior of students regarding famous, or eminent, literature of the Western world. It was necessary to narrow down and operationalize the subject area. Thus, the type of work considered was limited to the novel, which of necessity focussed attention on the eighteenth century or later. The study was conceived as exploratory; therefore, no hypotheses were developed.

Operational Definition of Eminent Works

The first necessity of this study was to decide upon an "operational definition" of what constituted an "eminent" or "great" novel. The approach taken was to identify two or more credible, respected authorities who had already made such lists, and thereby to find an area of consensus having some measure of face validity. A list no longer than 50 works was desired, to keep the study within manageable limits.

Two sources were found to be useful: E. D. Hirsch's Encyclopedia of Cultural History and the Great Books of the Western World's list of recommended works (in combination with the novels contained in the Great Books collection itself). A substantial area of overlap between the two lists--47 works--was found. Since two works were not located, the operational list became the 45 works listed in Table 1.

Insert Table 1 here

(The study avoids any debate regarding the appropriateness of any of the 45 works named in the table. However, a method of the type chosen was necessary in order to remove the selection from the realm of the authors' private opinions.)

A third source also consulted was called Great Treasury of Western Thought. When the overlapping works from among the three sources were identified, it revealed the following 16 works (see Table 2). The major results for this study (and for Study 2, discussed below) concern the 45 works originally identified. However, results for this arguably more selective list also will be given later in the paper.

Insert Table 2 here

Measurement of Borrowing Frequency

An objective method of measuring borrowing frequency followed the following steps. First, all copies or volumes of the work in the library were identified from the catalog. Second, for one work at a time all the volumes were taken from the shelf to be examined. Third, circulation data of two kinds were obtained and recorded: (1) the earliest date of circulation in the time period under study, and (2) the number of times the item had been checked out during the time period. The time period was limited to the last 10 years. This time period corresponded almost exactly to the time in which the previous (i.e., non-automated) check-out procedure had been used. During this time period a date stamp was used at the time of check-out, and the year of the stamp was color-coded. Although the colors have repeated several times, it is still possible in most cases, working backward from a known date, to determine the year of the first check-out under the current system. To test the reliability of this procedure, the library's Circulation Librarian was asked to replicate the procedure for 10 works selected randomly from the list. The reliability of the procedure could be estimated by comparing results for the two examiners, the first author and the Circulation Librarian. This estimate will be presented after discussing how the data were transformed.

Transformations of the basic data involved a simple ratio which was, for each volume, the number of check-outs divided by the elapsed time in years since the first stamp. This ratio was simply the rate, in times per year, that the volume had been checked out. Since the unit of analysis was the work, rather than the volume, the obtained ratios for each volume were simply added together. For example, four volumes of Jane Austen's Pride and Prejudice

yielded these ratios: 1.89, 1.00, 2.00 and 1.20. The sum of these ratios was 6.09. In other words, for the period under study this work has been checked out approximately 7 times per year. Similar procedures applied to all volumes studied yielded a mean of 2.85. To sum up, the average rate of borrowing these volumes was slightly less than three times per year.

Test of Reliability

A similar but somewhat higher mean resulted from limiting consideration to the second list of 16. This mean turned out to be 3.72. Thus, more eminent works have a higher average than the more inclusive list. For the test set of works, the mean rate of borrowing per book according to the first author's data was 2.42 as opposed to 2.07 for the Circulation Librarian. From a practical standpoint the difference between the two sets of results was inconsequential. A substantial correlation of .76 between the two sets of data was found. If the purpose of the exercise had been to obtain results which allowed detailed comparisons to be made between the various works, this correlation might be considered low. However, given the purpose to test reliability, the correlation is sufficient to show that the aggregate result was reasonable and reliable. In addition, the reasonable aggregate comparisons between data provided by the researcher and the library professional, whose familiarity with library check-out procedures was extensive, also lends credibility to the results.

The somewhat lower results obtained by the Circulation Librarian also suggest that the finding of an average check-out rate of less than 3 per year for this set of works probably is not an exaggeration in the direction of a low rate.

STUDY 2

Basic Procedures

Since the period of the two studies bracketed the conversion date from a manual to an online catalog system (i.e., February - March, 1991) in the University's library, two methods were available for comparison. The two methods differed only in the form and method of accessing the basic data from which library borrowing rates were calculated. Therefore, the sample of works studied was the same in both studies; hence Study 2 adopted the same procedures involved in the operational definition of eminent works used in Study 1.

The definition of borrowing frequency, and the procedures used to measure that frequency, were also the same in Study 2 as in Study 1. That is, for each volume of a work (if there were more than one volume or copy), the procedure identified two pieces of

data: the exact date when the volume became available for borrowing, and the number of check-outs since that date. Together these two pieces of data made it possible to measure the frequency of borrowing for particular volumes, i.e., number of times borrowed divided by the time available for borrowing. Further, since the work and not the volume was the unit of analysis, a second step was involved in the measurement, i.e., summing the separate ratios for each volume.

In short, the only difference between the two studies was in the method of obtaining the basic data, i.e., an automated or online system rather than the older manual system. An advantage of the online system is that its objectivity, and therefore reliability, approached 100 percent. The data points were obtainable by remote access on the computer, leaving little or no room for variation in results obtained by different investigators, unlike the manual-based Study 1.

As stated, the results for Study 2 are presented in Table 1 along with the results for Study 1. From Table 1 it can be seen that the mean rate of borrowing was 2.47, which was lower but still quite comparable with the results for Study 1. (There was much variation between the results for the two studies when individual works were compared; however, aggregate and not individual rates were the focus of the study). Three reasons may be cited as possible explanations of the somewhat higher rate found in Study 1 than in Study 2. First, actual borrowing rates for these works may have been slightly higher during the earlier time period. Second, a constant researcher error (as suggested by the trial replication by a librarian) might account for slightly higher results than warranted. Third, the two methods differed in one respect which could account for slightly higher rates for Study 1; that is, Study 1 counted check-outs up to the date of the study whereas Study 2 counted check-outs only up to the last check-out, thus not counting the most current shelf-time for many works. Nevertheless, the aggregate result appears to be reasonably stable over a long period of time, as measured by the methods of this study.

As regards the implementation of this methodology, the authors recommend providing comparative data to make studies meaningful and useful.

SUMMARY

This report presents a methodology for the study of library borrowing rates, using both manual and automated systems of retrieval and check-out. The two methods produced reasonably consistent and stable results for a sample of 45 works which had been identified as eminent novels. Comparative data from other libraries, and for other categories of works, would be useful in providing a meaningful context for results when interpreting data obtained using this methodology. For example, the borrowing rates

found at the same library in other categories of works, or disciplines, and the borrowing rates for the library collection as a whole, are important pieces of information for interpreting a study of the kind presented here to illustrate the methodology. In addition, comparable studies at other libraries would also be helpful.

TABLE 1: Borrowing Rates of 45 Eminent Novels

AUTHOR	TITLE	BORROWING RATE	
		STUDY 1	STUDY 2
Alcott	Little Women	0.50	0.55
Austen	Emma	6.04	2.35
Austen	Pride & Prejudice	6.09	5.08
Balzac	Old Goriot	1.40	1.50
Bronte, C.	Jane Eyre	4.17	2.19
Bronte, E.	Wuthering Heights	8.88	9.83
Bunyan	Pilgrim's Progress	1.90	0.00
Carroll	The Looking Glass	2.70	0.00
Carroll	Alice in Wonderland	3.30	7.07
Cather	My Antonia	0.80	0.75
Cervantes	Don Quixote	7.58	0.00
Conrad	Heart of Darkness	2.10	5.69
Crane	Red Badge of Courage	3.73	1.09
Dickens	David Copperfield	2.10	0.00
Dickens	Great Expectations	4.13	4.91
Dickens	Tale of Two Cities	3.55	1.72
Dostoyevsky	Brothers Karamazov	1.30	2.56
Dumas	The Three Musketeers	1.30	1.50
Eliot	Middlemarch	1.10	1.64
Fielding	Tom Jones	1.10	1.64
Fitzgerald	The Great Gatsby	2.57	2.84
Flaubert	Madame Bovary	0.50	4.94
Hawthorne	The Scarlet Letter	10.45	3.28
Hemingway	The Old Man and the Sea	2.40	12.23
Huxley	Brave New World	4.20	2.74
James	Portrait of a lady	1.37	0.00
Kafka	The Trial	1.40	0.00
Kipling	Kim	1.07	0.55
Lawrence	Sons and Lovers	2.00	0.00

Lewis	Babbitt	0.80	1.09
Melville	Moby Dick	2.90	0.00
Mitchell	Gone With the Wind	3.00	7.11
Orwell	Animal Farm	1.80	0.55
Salinger	The Catcher in the Rye	0.00	5.46
Scott	Ivanhoe	1.00	0.55
Shelley	Frankenstein	0.57	0.55
Stevenson	Treasure Island	2.60	1.09
Swift	Gulliver's Travels	3.77	5.47
Thackeray	Vanity Fair	4.80	0.55
Tolstoy	Anna Karenina	1.27	2.39
Tolstoy	War and Peace	0.50	1.18
Twain	Huckleberry Finn	8.97	2.73
Voltaire	Candide	4.38	3.01
Wells	The Time Machine	0.00	2.19
Woolf	To the Lighthouse	2.10	0.55
	MEAN:	2.85	2.47

TABLE 2: List of 16 Most Selective Works

AUTHOR	TITLE
Austen	Emma
Austen	Pride and Prejudice
Bunyan	Pilgrim's Progress
Cervantes	Don Quixote
Dickens	David Copperfield
Dostoyevsky	Brothers Karamazov
Dostoyevsky	Crime and Punishment
Eliot	Middlemarch
Fielding	Tom Jones
Hawthorne	Scarlet Letter
Melville	Moby Dick
Swift	Gulliver's Travels
Tolstoy	Anna Karenina
Tolstoy	War and Peace
Twain	Huckleberry Finn
Voltaire	Candide

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